

AMENDMENTS TO THE CLAIMS

Detailed Listing of All Claims 1-19:

1 (Previously presented). An electric motor cartridge (1) configured for insertion
5 in a housing and to drive a compressor wheel, the electric motor cartridge (1)
comprising:
a first cartridge housing portion (2);
a second cartridge housing portion (3); and
a rotor (21);
10 the cartridge housing portions (2, 3) being coupled together so as to
assemble the electric motor cartridge (1) by radially and axially encapsulating a
stator (4) there between,
wherein each cartridge housing portion (2, 3) has a semi-shell shape
substantially comprised by a bottom portion (5, 6) and a cylindrical wall portion
15 (7, 8),
wherein at least one of the cylindrical wall portions (7, 8) forms a contact
(14, 15) upon insertion of the assembled electric motor cartridge (1) in a
housing,
wherein one of the bottom portions (6) forms part of a fixed
20 encapsulation barrier between the stator (4) and a compressor wheel to be
driven by the assembled electric motor cartridge (1),

wherein each cartridge housing portion (2, 3) provides a bore (12, 13) in the center of its bottom portion (5, 6),

characterized in that

the rotor (21) has peripheral portions (22, 23) inserted through the
5 bores (12, 13) of the cartridge housing portions (2, 3) and a through hole axially
extending through the rotor (21) and its peripheral portions (22, 23) for inserting
a shaft (34) through the rotor (21).

2 (Previously presented). The electric motor cartridge (1) according to claim 1,
10 wherein at least one of the cartridge housing portions (2, 3) is provided with at
least one recess portion (9, 10) formed at the inner side of the axial end portion
of the cylindrical wall portion (7, 8) which extends at least partially in the
circumferential direction of the cylindrical wall (7, 8) for receiving a projection
(11) of the stator (4).

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3 (Previously presented). The electric motor cartridge (1) according to claim 2,
wherein each cartridge housing portion (2, 3) is provided with one recess
portion (9, 10), wherein the recess portions (9, 10) are symmetrically to a plane
defined by the abutting tips of the cylindrical wall end portions.

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4 (Previously presented). The electric motor cartridge (1) according to claim 3, wherein at least one of the bottom portions (5, 6) is formed at least partly concave inwardly.

5 5 (Previously presented). The electric motor cartridge (1) according to claim 4, wherein at least one contact area (14, 15) is formed at each of the cartridge housing portions (2, 3) so as to be in contact with respective counter contact areas of two housings (31, 19) between which the cartridge (1) is fittable.

10 6 (Previously presented). The electric motor cartridge (1) according to claim 5, wherein in at least one of the cartridge housing portions (2, 3) a circumferentially extending groove (16) is disposed so as to receive an o-ring (17) for sealing between the cartridge housing (2, 3) and one of the two housings (31, 19) between which the cartridge (1) is fittable.

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7 (Canceled).

8 (Previously presented). The electric motor cartridge (1) according to claim 1, wherein the cartridge housing (2, 3) is made of punched metal, any polymer
20 potted material, any die casting material or any sand casting material.

9 (Previously presented). The electric motor cartridge (1) according to claim 8, wherein the properties of the material of the cartridge housing (2, 3) contributes to heat evacuation and heat protection.

5 10 (Previously presented). The electric motor cartridge (1) according to claim 1, wherein the material properties of the cartridge housing contributes to electromagnetic interference protection.

11 (Previously presented). The electric motor cartridge (1) according to claim 1,
10 wherein at least one of the cartridge housings (2, 3) comprises a connector portion (20) for phases and sensor connections of a compressor motor.

12 (Previously presented). The electric motor comprising an electric motor cartridge (1) according to claim 1 wherein the rotor (21) is encompassed by the
15 stator (4).

13 (Previously presented). The electric motor according to claim 12, wherein the rotor (21) comprises two peripheral portions (22, 23) each having a smaller diameter compared to the diameter of a middle portion of the rotor (21)
20 encompassed by the stator, each peripheral portion (22, 23) comprising a circumferential groove (24, 26) provided with a piston ring (25, 27) for sealing

between the inside and the outside of the cartridge (1), wherein the rotor (21) is supported at the two peripheral portions (22, 23) by the bores (12, 13).

14 (Previously presented). The electric motor according to claim 12, further
5 comprising material removal areas on said rotor (21) providing a unitary rotational mass distribution of the rotor.

15 (Previously presented). The electric motor according to claim 12 further comprising a sensor member (28) for detecting the speed of the rotor (21).
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16 (Previously presented). The electric motor according to claim 12, wherein phases and sensors connections are arranged in the connector portion (20) such that they plug directly to wiring end connections when assembling the compressor motor.

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17 (Previously presented). A turbocharger comprising an electric motor according to claim 12 and further comprising

a turbine housing (18) for accommodating a turbine wheel (29) driven by exhaust gas;

20 a center housing (31) for accommodating a shaft (34) and the electric motor, the shaft serving as a rotor (21) of the electric motor and extending from

the turbine wheel (29) through a journal bearing (35) and the electric motor to a compressor wheel (32);

a compressor housing (19) for accommodating the compressor wheel (32); wherein

5 the compressor wheel (32) is driven by the turbine wheel (29) via the shaft (34) and can additionally be driven by the electric motor, and

the electric motor is accommodated in the center housing (31) such that the electric motor is firmly fixed by connecting the center housing (31) to the compressor housing (19).

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18 (Previously presented). A turbocharger according to claim 17, wherein one of the cartridge housing portions (2) serves as a seal plate on the journal bearing (35) side and the other cartridge housing portion (3) serves as a backplate on the compressor wheel (32) side.

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19 (Previously presented). A compressor comprising an electric motor according to claim 12 and further comprising

a motor housing for accommodating a shaft and the electric motor, the shaft serving as a rotor of the electric motor and carrying a compressor wheel;

20 and

a compressor housing for accommodating the compressor wheel;
wherein

the electric motor is accommodated in the motor housing such that the compressor motor is firmly fixed by connecting the motor housing to the compressor housing.